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U.S. Environmental Protection Agency Region 10

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Boeing Plant 2

This fact sheet presents information about the investigation and cleanup of hazardous waste contamination at The Boeing Company's (Boeing's) Plant 2 facility in Seattle, Washington, under the U.S. Environmental Protection Agency's (EPA's) Resource Conservation and Recovery Act (RCRA). The facility has contaminated soil and groundwater, and sediment in the Duwamish Waterway. If you are interested in receiving updates on this project, please fill out the form on the back page of this fact sheet and return it to EPA.

What is Happening This Year

This year, EPA and Boeing will achieve significant milestones in cleaning up the Plant 2 facility. Several major actions are under way:

- Sampling and analysis of the groundwater along the shoreline to establish a baseline for the contaminants present in the groundwater that are being released into the Duwamish Waterway.
- Collecting groundwater data to evaluate the effectiveness of three vertical sheet metal enclosures installed below ground to contain contaminants and reduce releases of contaminants into the Duwamish Waterway.
- Continuing the evaluation of solid waste storage areas to verify the adequacy of previous investigations of the nature and extent of contaminant releases from those areas.
- Expanding the investigation of the sediment in the Duwamish Waterway to further characterize the nature and extent of contamination under the sediment surface.

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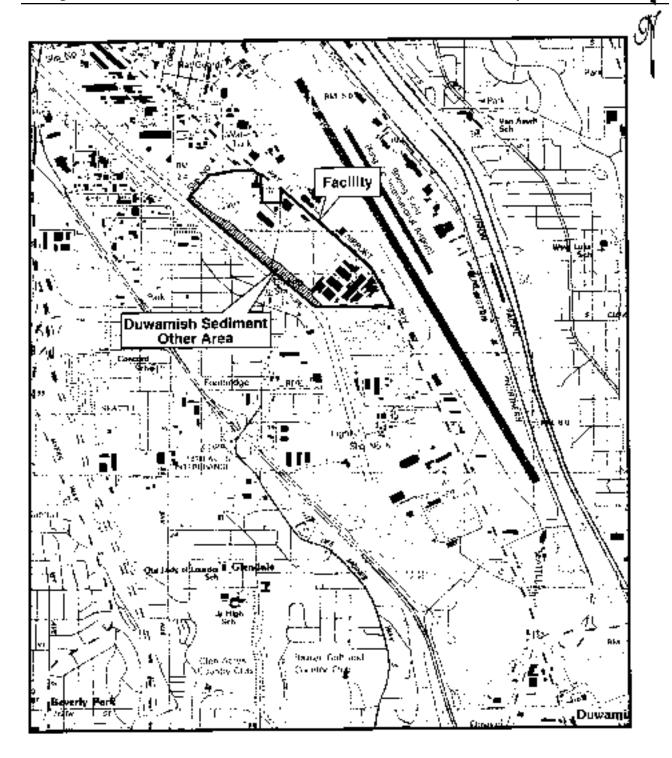
A Little Bit of Plant 2 History

Boeing's Plant 2 address is 7755 East Marginal Way South in Seattle, and the property extends into Tukwila, Washington. The facility is bordered by the Duwamish Waterway to the west and is completely fenced. Most of the 107-acre site is covered with offices, other buildings and pavement.

Since 1936 Boeing has manufactured airplane parts at Plant 2, using a wide range of hazardous chemicals, including heavy metals (chrome, zinc, copper, cadmium, silver), cyanide, mineral acids and bases, petroleum products, polychlorinated biphenyls (PCBs),

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Map prepared from USGS 7.5x15 Minute Quadrangle Seattle South, Washington



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and chlorinated solvents, such as trichloroethylene. The manufacturing operations generated a variety of hazardous wastes, including caustic wastes, spent electroplating baths, milling solutions and sediment, process rinse water, paints and solvents.

Much of the facility is now used for storing parts and equipment. There are, however, some limited manufacturing operations, including machining of airplane parts, parts cleaning, toolmaking, painting and paint stripping.

RCRA Corrective Action Process

The following diagram represents the key elements of the RCRA corrective action process. Boeing is completing the investigative phase of the RCRA corrective action, and is now preparing a corrective measures study and designing and constructing interim corrective measures.

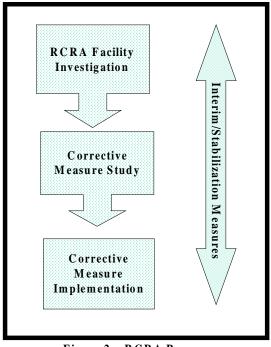


Figure 2 - RCRA Process

What Is Happening Under the RCRA Order

In 1994, EPA and Boeing signed a legal document called an Administrative Order on Consent, which required Boeing to perform corrective action at Plant 2 in a manner acceptable to EPA. The requirements of the order include the following work:

- Perform RCRA facility investigation.
- Perform interim corrective measures.
- Perform a corrective measures study.
- Implement the selected remedies.

RCRA Facility Investigation Report Completed

Under the 1994 order, Boeing conducted several investigations to determine the nature and extent of contamination. During the investigations, over 120 different solid waste management areas were identified. Approximately 2100 soil samples from more than 400 locations were collected and analyzed. In addition, monitoring wells were installed at over 350 locations to sample groundwater, and sediment in the Duwamish Waterway was sampled at more than 100 stations. The contaminants detected in soil and groundwater were volatile organic compounds, semivolatile organic compounds, PCBs, and heavy metals. The contaminants of concern detected in sediment were PCBs, polyaromatic hydrocarbons, and heavy metals. The results of the investigation are summarized in the 1998 RCRA Facility Investigation Report, which is available at the repositories listed at the end of this fact sheet. EPA did not identify any imminent risk to people as a result of this contamination.

Additional Investigations Progressing

Since completing the report, Boeing has conducted additional field investigations of contaminants in the Duwamish Waterway sediment, which will help establish a baseline Boeing Plant 2 September 2001

for contamination in the groundwater discharging into the waterway. During the summer of 2001, Boeing installed new monitoring wells along the shoreline and investigated sediments in the waterway immediately adjacent to Plant 2.

Interim Corrective Measures Continuing

Also under the 1994 order, Boeing completed several interim corrective measures to reduce impacts to the environment caused by chemical releases at Plant 2. These measures include the installation of three vertical metal enclosures below ground and the excavation and disposal of contaminated soils from several areas.

Investigation work done this past summer will be the basis for designing a corrective measure to manage the risk posed by contaminants in the sediment in the Duwamish Waterway adjacent to Plant 2. Implementation of this corrective measure is planned for 2003. EPA and the Washington State Department of Ecology are closely coordinating the Plant 2 sediment work with other sediment work in the waterway.

Corrective Measures Study Progressing

At the same time as developing the interim corrective measures, Boeing began a corrective measures study to evaluate further cleanup actions for the facility. The study will define appropriate cleanup goals; develop site-specific cleanup levels for soil, groundwater, and sediment that will protect human health and the environment; and evaluate potential cleanup technologies.

How to Get More Information

To find out more about the cleanup activities at Boeing's Plant 2 facility, please visit one of the information repositories. They contain documents such as the Administrative Order on Consent, work plans, study reports and technical memoranda. The information

repositories have been established at the following locations:

Tukwila City Hall Attn: Jack Pace 6200 Southcenter Blvd. Tukwila, WA 98188 206/431-3686

U.S. EPA Region 10 Library 1200 Sixth Avenue Seattle, WA 98101-9797 206/553-1289

You are also welcome to call or e-mail for information:

Anna Filutowski, EPA Project Manager 206/553-5122 <u>filutowski.anna@epa.gov</u>

Cindy Colgate, Community Involvement Coordinator 206/553-1815 <u>colgate.cindy@epa.gov</u>

To ensure effective communication with everyone, additional services can be made available to persons with disabilities by contacting one of the EPA representatives above.